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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Herve Le Floch

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EXAMINER

POPHAM, JEFFREY D

ART UNIT

PAPER NUMBER

2137

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/910,929

Applicant(s)

LE FLOCH, HERVE

Examiner

Jeffrey D. Popham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,8,10,15 and 19-22 is/are allowed.
- 6) ☒ Claim(s) 4-7,11-14,17,18 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Remarks

Claims 1, 3-8, and 10-26 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/3/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 4-7, 11-14, 16-18, and 23-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 4-7, 11-14, 17, 18, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (U.S. Patent 6,104,826) in view of Nakamura (U.S. Patent 6,185,312) and Collier (U.S. Patent 6,360,000).

Regarding Claim 4,

Nakagawa discloses a method for extracting a message from digital data representative of physical quantities, the message including ordered symbols, comprising the steps of:

Extracting a length of an inserted message, from a set of length values, based on the digital data (Column 13, line 10 to Column 14, line 4); and

Extracting the inserted message (Column 13, line 10 to Column 14, line 4);

But does not explicitly disclose segmenting the data into regions or that the extracting step includes generating a key which depends on an initial key and on an assumed length for the inserted message from the set of length values.

Nakamura, however, discloses segmenting the data into regions (Column 11, lines 16-61); and extracting the inserted message (Column 11, lines 16-61); wherein the step of extracting a length of an inserted message includes a step of generating a key which depends on an initial key and on a length for the inserted message from the set of length values (Column 12, lines 13 to Column 13, line 10). It would have been obvious

to one of ordinary skill in the art at the time of applicant's invention to incorporate the keyed watermarking scheme of Nakamura into the watermark embedding/extracting system of Nakagawa in order to secure the watermark through the use of keys, such that an entity that does not have access to the proper keys cannot find or extract the watermark.

Collier, however, explicitly discloses use of an assumed length in the extraction process (Column 5, line 54 to Column 6, line 11; and Column 11, lines 10-46). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the watermark detection techniques of Collier into the watermark embedding/extracting system of Nakagawa as modified by Nakamura in order to allow watermarks to be detected when the scaling of a piece of content (such as video) is unknown or has been changed by an unknown scale factor, when the watermarked data has undergone an arbitrary shift, as well as when the size of the watermark is unknown.

Regarding Claim 11,

Claim 11 is a device claim that corresponds to method claim 4 and is rejected for the same reasons.

Regarding Claim 17,

Claim 17 is an apparatus claim that corresponds to method claim 4 and is rejected for the same reasons.

Regarding Claim 18,

Claim 18 is an apparatus claim that corresponds to method claim 4 and is rejected for the same reasons.

Regarding Claim 23,

Claim 23 is a storage medium containing a computer readable program claim that corresponds to method claim 4 and is rejected for the same reasons.

Regarding Claim 26,

Claim 26 is a storage medium containing a computer readable program claim that corresponds to method claim 4 and is rejected for the same reasons.

Regarding Claim 5,

Nakagawa as modified by Nakamura and Collier discloses the method of claim 4, in addition, Nakagawa discloses that the step of extracting the length of the inserted message includes the steps of:

- Selecting the set of length values (Column 13, line 10 to Column 14, line 4);

- Calculating a correlation value between the message and the digital data, for each of the length values (Column 13, line 10 to Column 14, line 4); and

- Determining a local maximum among the correlation values (Column 13, line 10 to Column 14, line 4).

Regarding Claim 12,

Claim 12 is a device claim that corresponds to method claim 5 and is rejected for the same reasons.

Regarding Claim 6,

Nakagawa as modified by Nakamura and Collier discloses the method of claim 4 or 5, in addition, Nakagawa discloses that the step of extracting the length of the inserted message is carried out while processing F times fewer coefficients than included in the digital data (Column 13, line 10 to Column 14, line 4).

Regarding Claim 13,

Claim 13 is a device claim that corresponds to method claim 6 and is rejected for the same reasons.

Regarding Claim 7,

Nakagawa as modified by Nakamura and Collier discloses the method of 6, in addition, Nakagawa discloses determining a total number of coefficients to be considered (Column 13, lines 35-44); selecting a maximum number of coefficients corresponding to a same inserted symbol, and, if the total number of coefficients to be considered has not been reached, reiterating the selecting step for another symbol (Column 13, line 10 to Column 14, line 4).

Regarding Claim 14,

Claim 14 is a device claim that corresponds to method claim 7 and is rejected for the same reasons.

Regarding Claim 24,

Nakagawa as modified by Nakamura and Collier discloses the storage medium of claim 23, in addition, Nakamura discloses that the storage medium is detachably mountable on a device (Column 53, lines 16-20).

Regarding Claim 25,

Nakagawa as modified by Nakamura and Collier discloses the storage medium of claim 23, in addition, Nakamura discloses that the storage medium is a floppy disk or CD-ROM (Column 53, lines 16-20).

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Nakamura and Collier, further in view of Keener (U.S. Patent 5,293,590).

Nakagawa as modified by Nakamura and Collier discloses the device of claim 11, in addition, Nakagawa discloses that the extraction method is incorporated into a microprocessor, and a read only memory including a program for processing the data (Column 12, lines 28-67); but may not explicitly disclose RAM.

Keener, however, discloses RAM in use in a conventional computer system (Column 4, lines 21-43). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the use of RAM of Keener into the watermark embedding/extracting system of Nakagawa as

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modified by Nakamura and Collier in order to provide working memory that has fast access times and can be used quickly and efficiently.

Allowable Subject Matter

5. Claims 1, 3, 8, 10, 15, and 19-22 are allowed. Additionally, multiple dependent claims 17 and 18 are allowable in their dependence on claims 1 and 8, but not 4 and 11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham
Examiner
Art Unit 2137


EMMANUEL L. MOISE
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